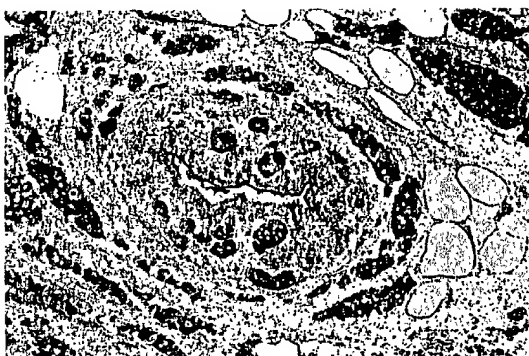FIG.1

Malignant Breast
96102003G H9C65

FIG.2A

Malignant Breast
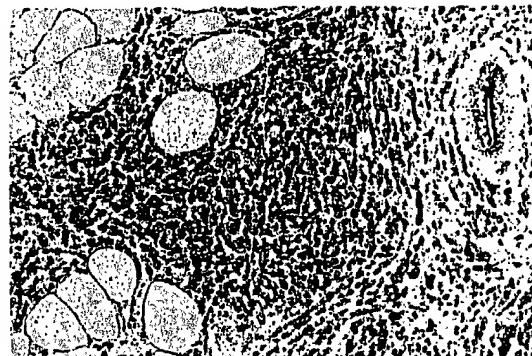9609C033R H9C65

FIG.2B

Normal Breast.
9712C030G H9C65
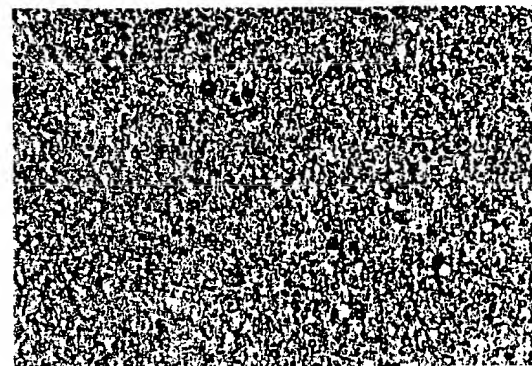

FIG.2C

MB8 Cell Line
H9C65

FIG.2D

Malignant Breast
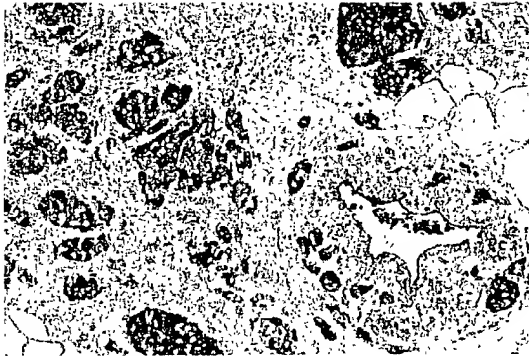96102003G H95C30

FIG.3A

Malignant Breast
9609C033R H95C30
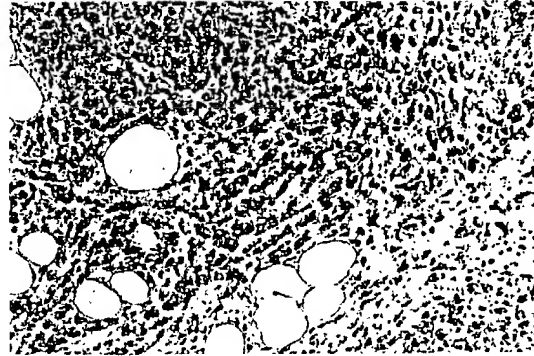

FIG.3B

Normal Breast
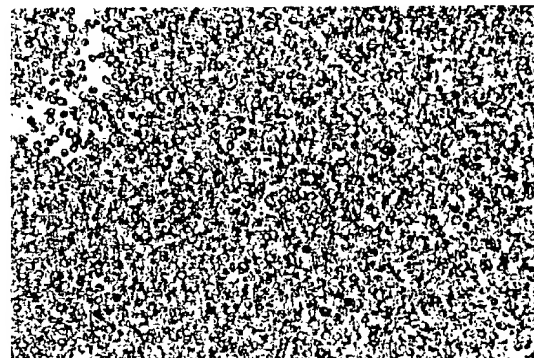9712C030G H95C30

FIG.3C

MB8 Cell Line
H95C30

FIG.3D

1　2　3　4　　　　　1

anti-mycMAb

FIG.4A

1　2　3　4　　　　　2

anti-BU101 PAb 10923
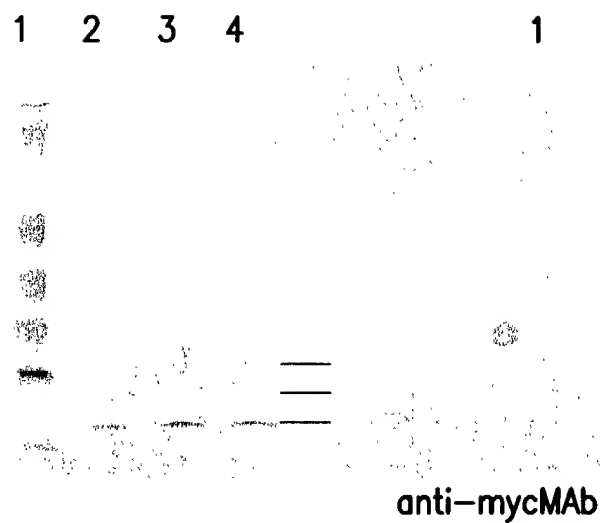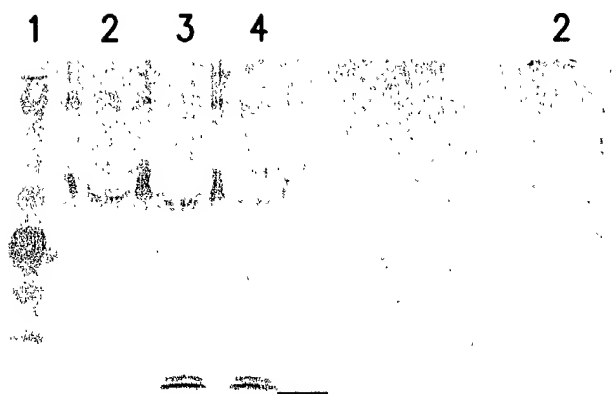
FIG.4B

1   2   3   4   3

anti-Mam PAb 10931

FIG.4C

anti-myc MAb

FIG.5A

FIG.5B

1   2   3   4
1 2 1 2 1 2 1 2

10918 10923 11543 10931

FIG.6A
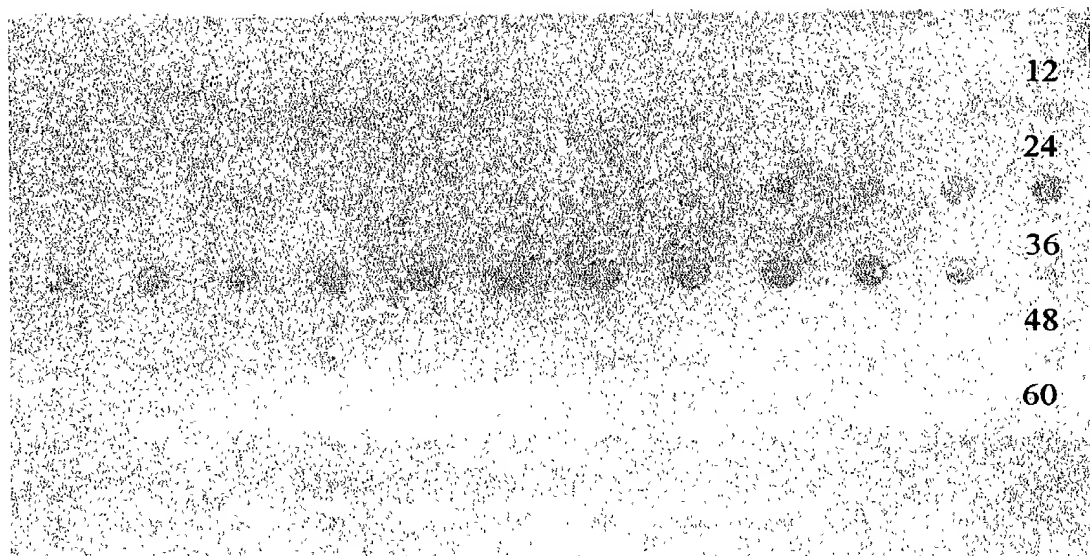
5   6   7   8
1 2 1 2 1 2 1 2

H85   H68   H111   myc
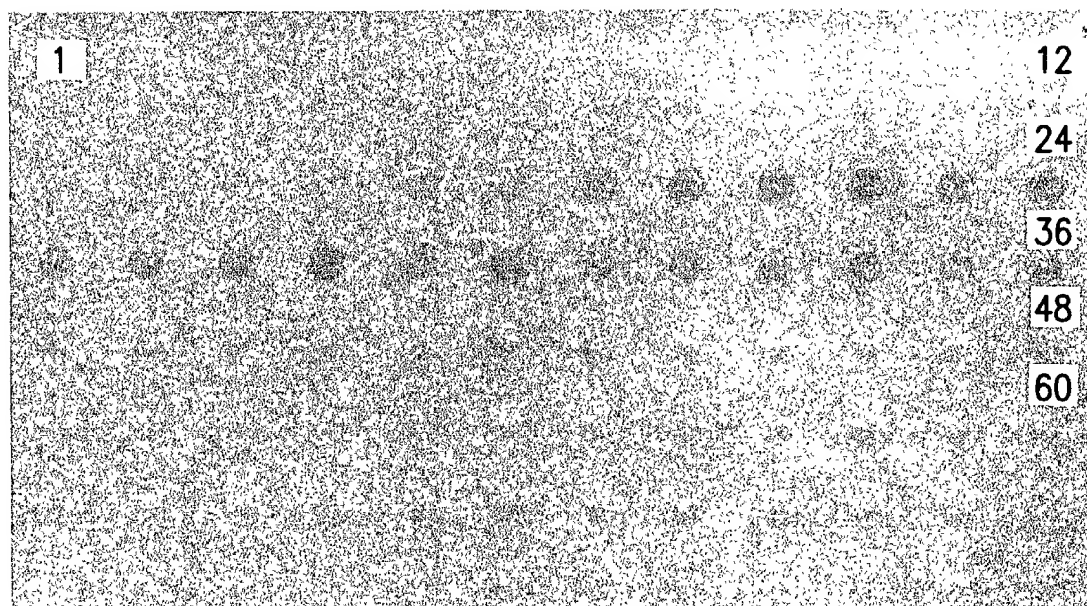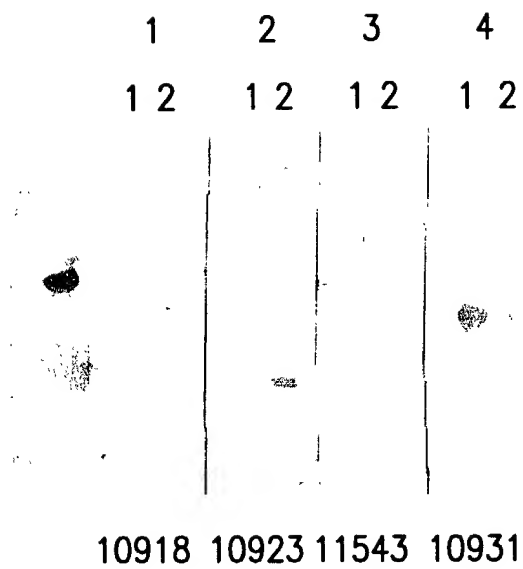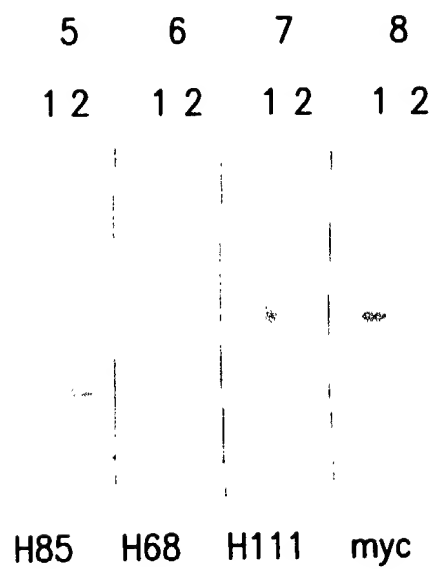
FIG.6B
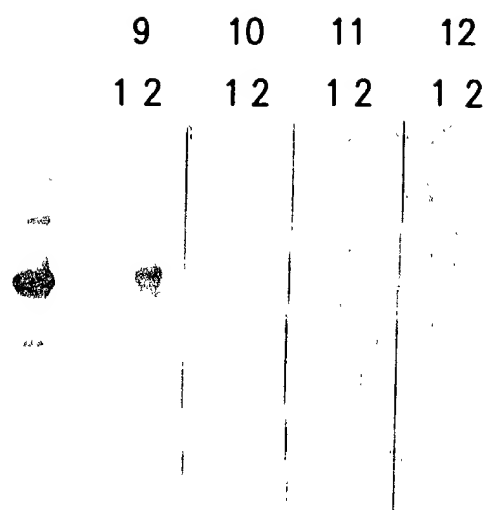
9 10 11 12
1 2 1 2 1 2 1 2

10918 10923 11543 10931

Polyclonal Antisera, 1:5000

FIG.6C
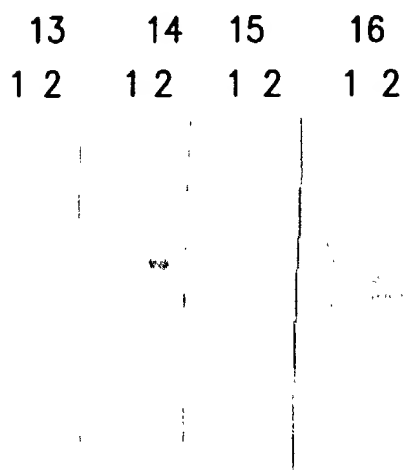
13 14 15 16
1 2 1 2 1 2 1 2

H85 H68 H111 myc

Monoclonal Antibodies 1:50

FIG.6D

1 2

FIG.7

1

12

24

36

●

48

60

72

84

FIG.8A

1

12

24

36

48

60

72

84
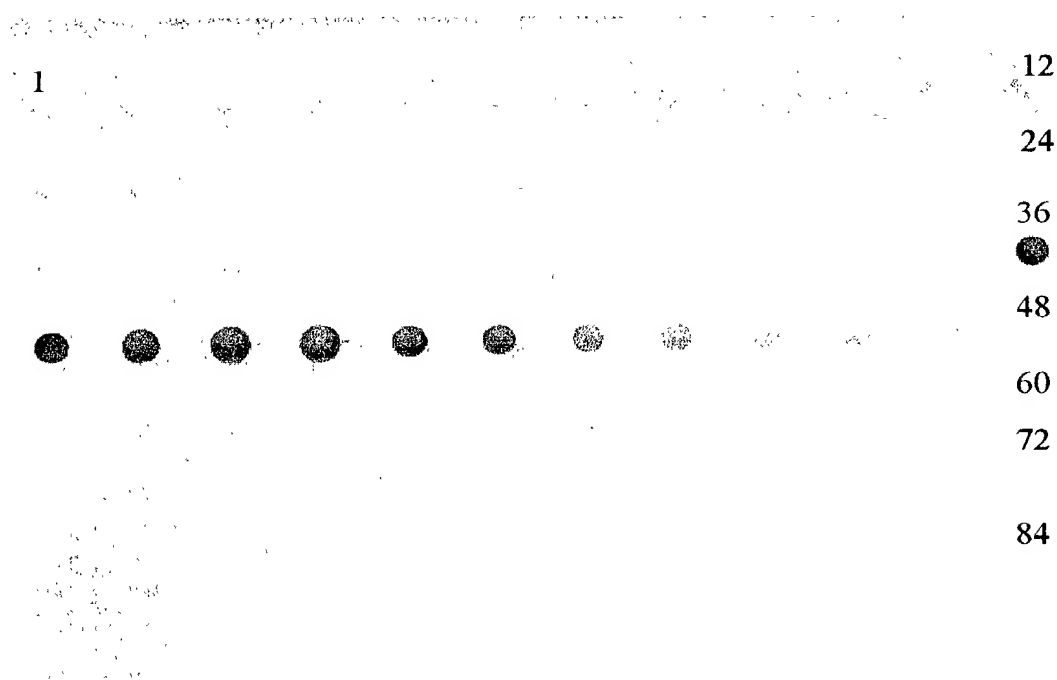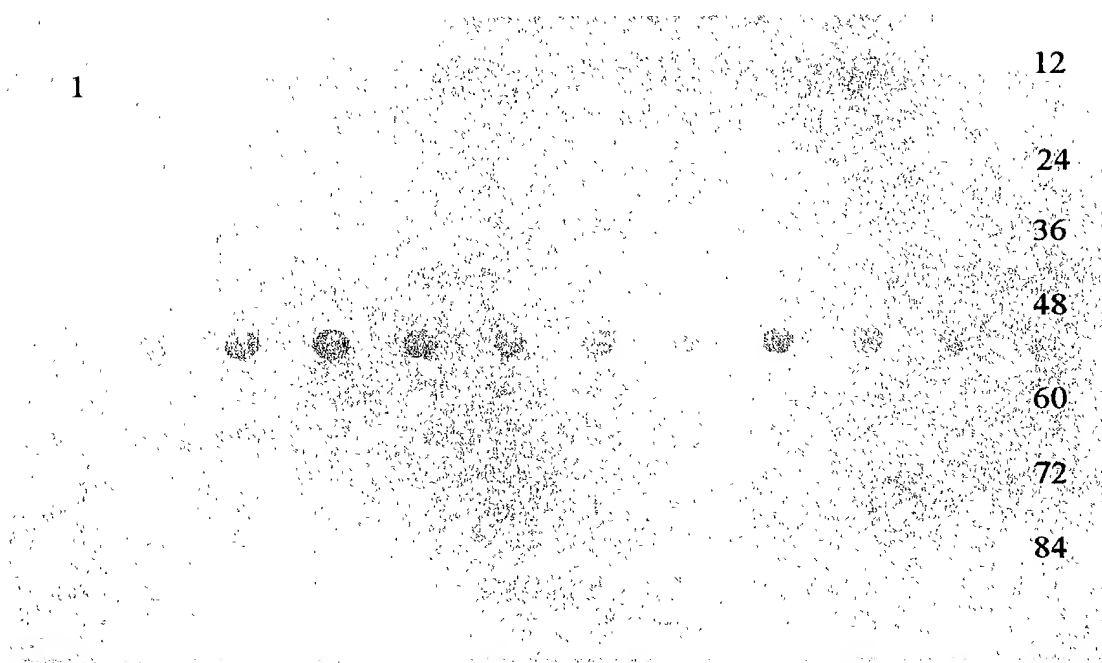
FIG.8B
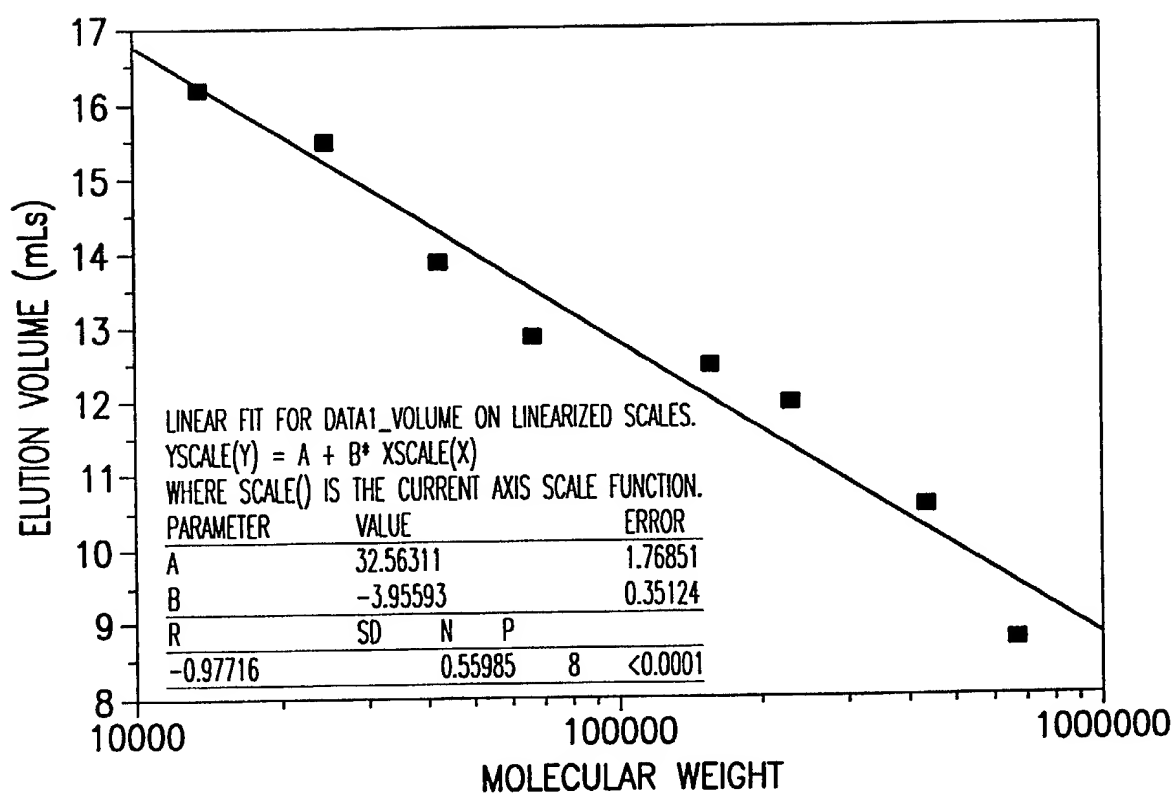
FIG.9

FIG.10

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
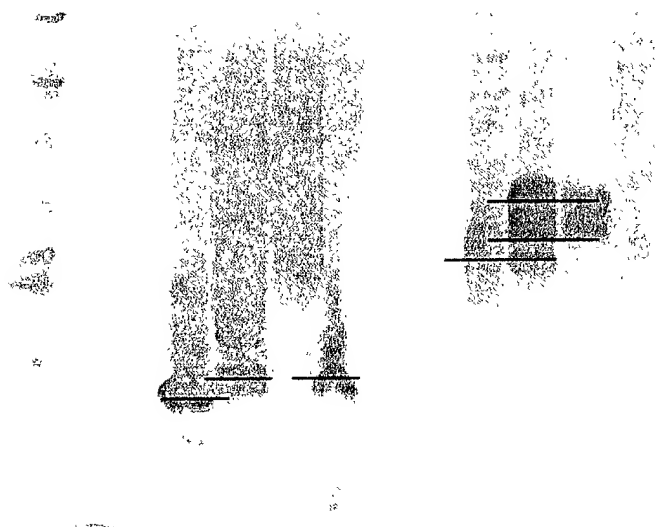
FIG.11A

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
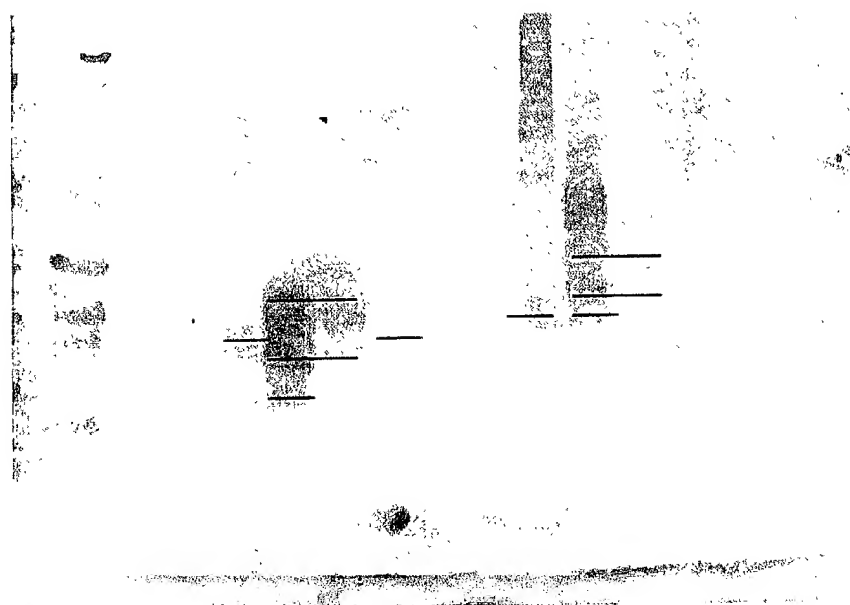
FIG.11B
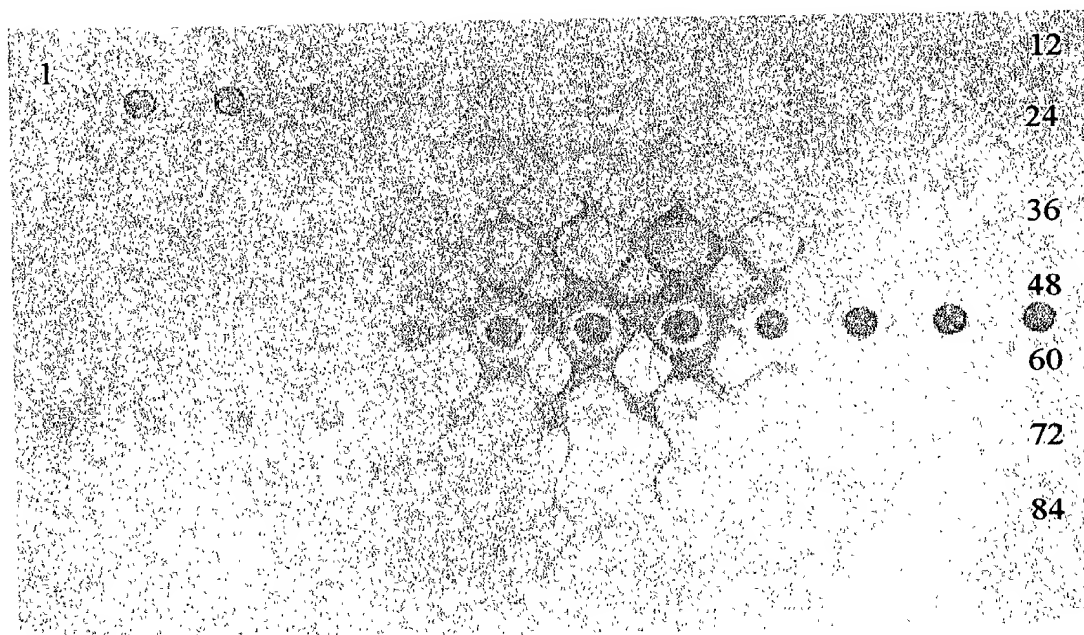
anti−BU101.3, 10923, 1:5000
sample reduced and boiled

FIG.12A
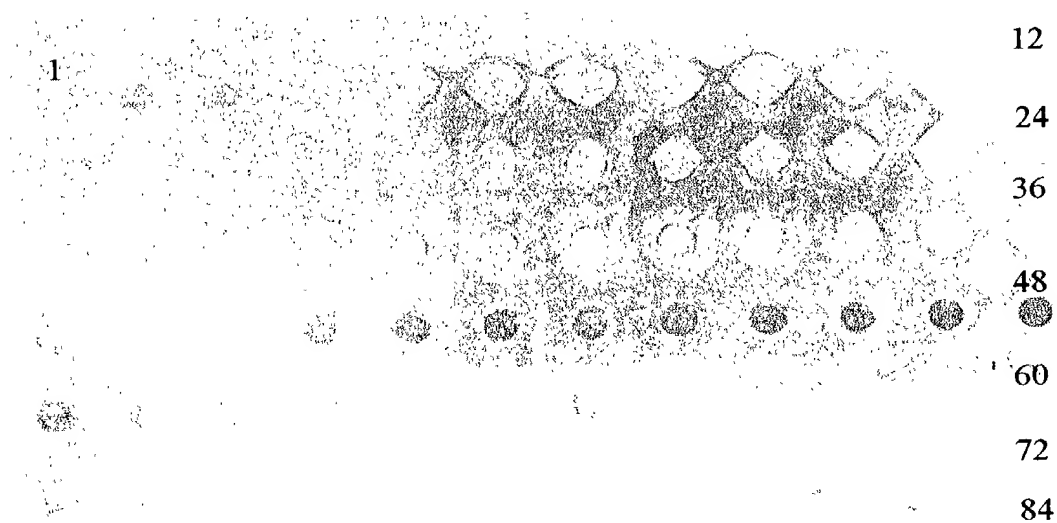
anti−MAM.1, 10931,1:5000
sample reduced and boiled

FIG.12B

Reduced   Not Reduced

42 43 44 45 46 47 48   42 43 44 45 46 47 48
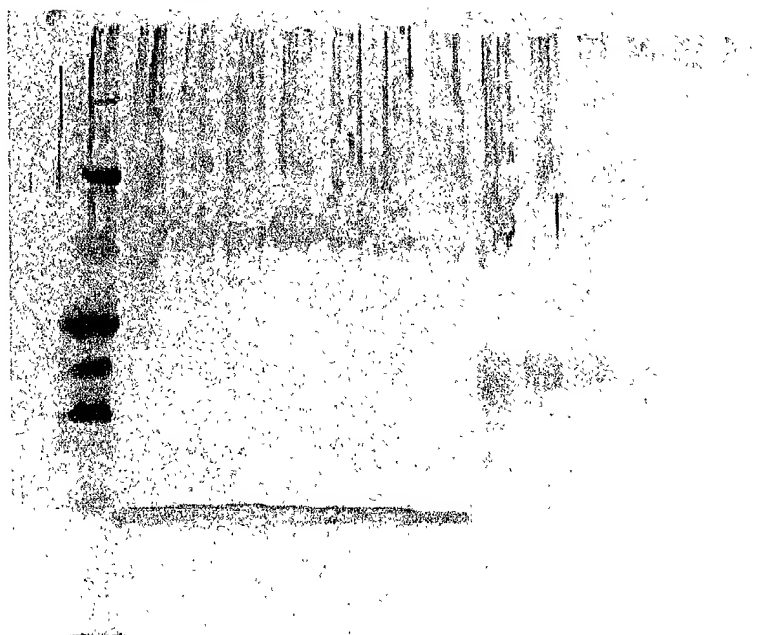
Polyclonal Antibody 10923
anti−BU101.3

FIG.13A

Reduced   Not Reduced
42 43 44 45 46 47 48 42 43 44 45 46 47 48
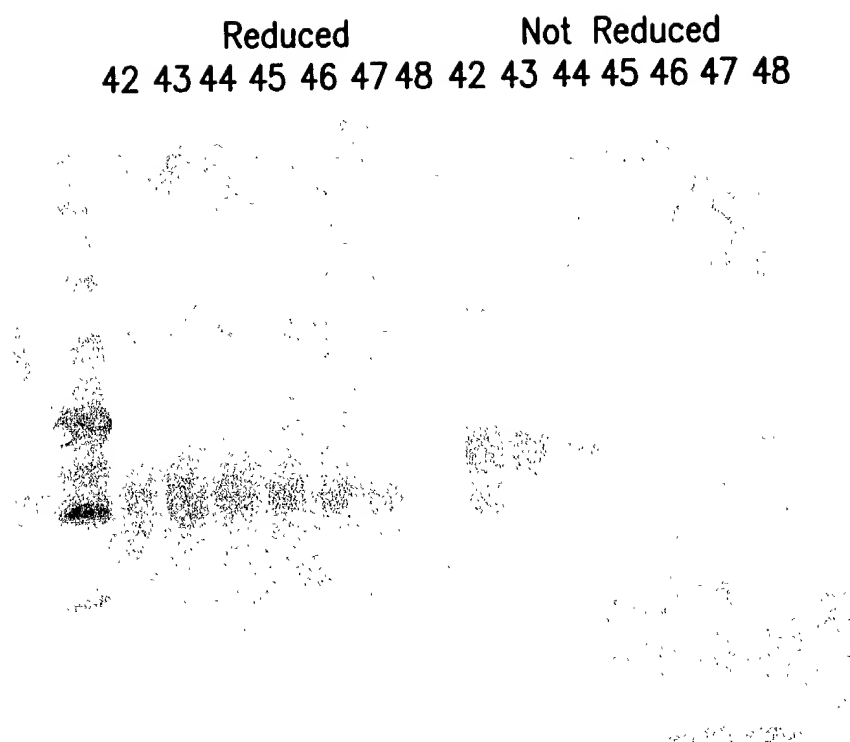
Polyclonal Antibody 10931
anti−MAM.1

FIG.13B
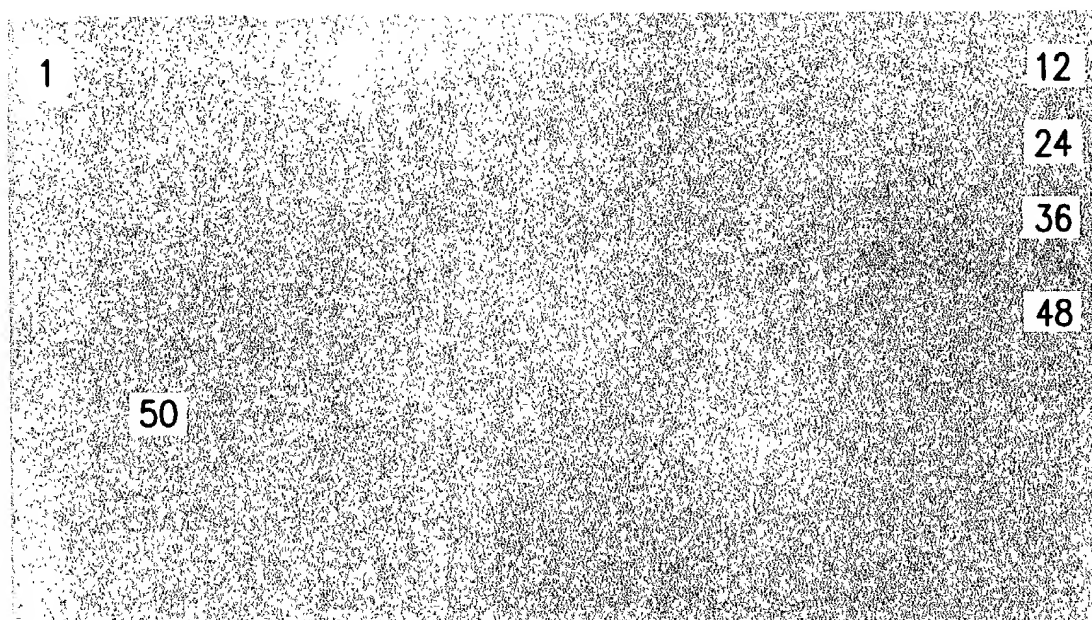
anti-BU101 polyclonal 10923

FIG.14A
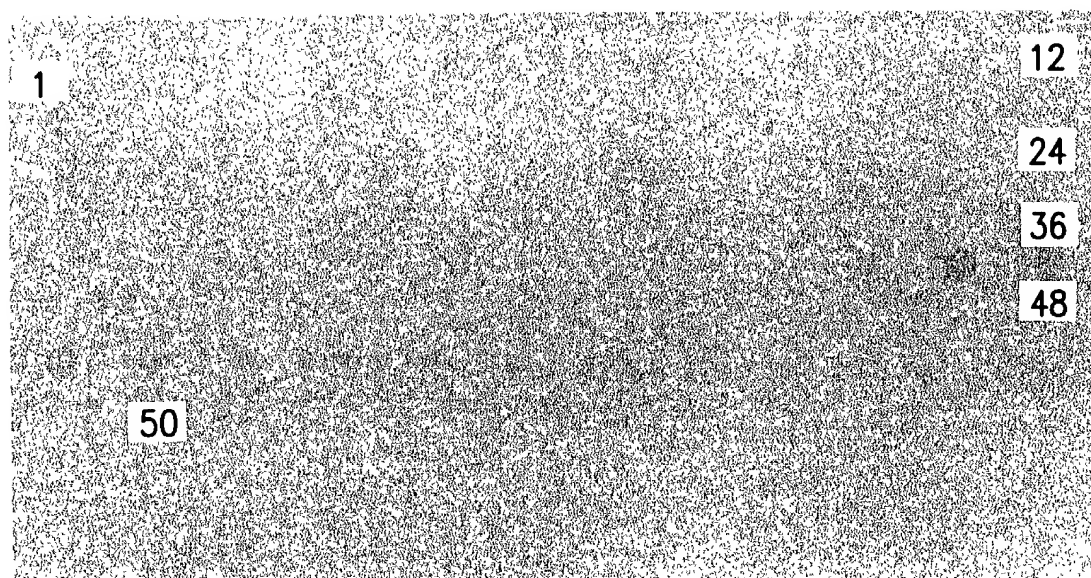
anti-Mam polyclonal

FIG.14B
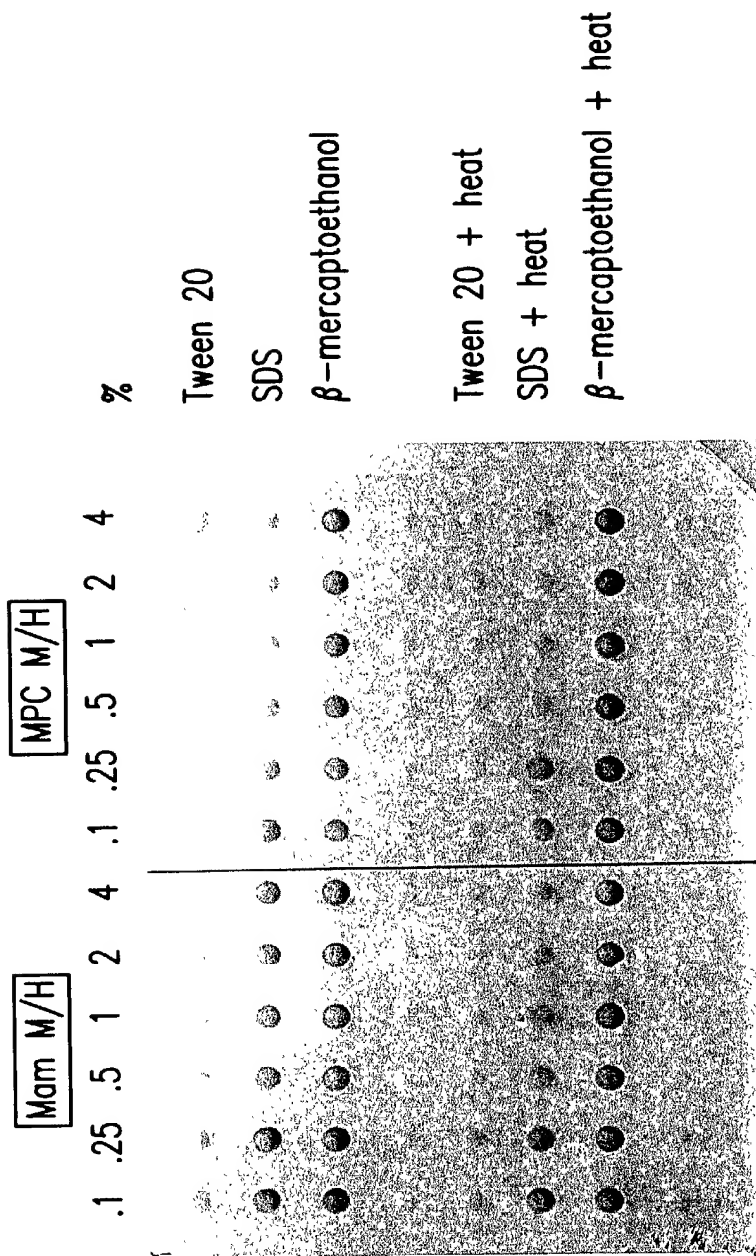
FIG.15

anti-myc, 1:5000

```
Met Lys Leu Ser Val Cys Leu Leu Leu Val Thr Leu Ala Leu Cys Cys
 1               5                   10                  15
Tyr Gln Ala Asn Ala Glu Phe Cys Pro Ala Leu Val Ser Glu Leu Leu
             20                  25                  30
Asp Phe Phe Phe Ile Ser Glu Pro Leu Phe Lys Leu Ser Leu Ala Lys
         35                  40                  45
Phe Asp Ala Pro Pro Glu Ala Val Ala Ala Lys Leu Gly Val Lys Arg
     50                  55                  60
Cys Thr Asp Gln Met Ser Leu Gln Lys Arg Ser Leu Ile Ala Glu Val
65                  70                  75                      80
Leu Val Lys Ile Leu Lys Lys Cys Ser Val
                 85                  90
```

FIG.16

ASSEMBLY OF BS106 FROM INDIVIDUAL EXPRESSED TAGS
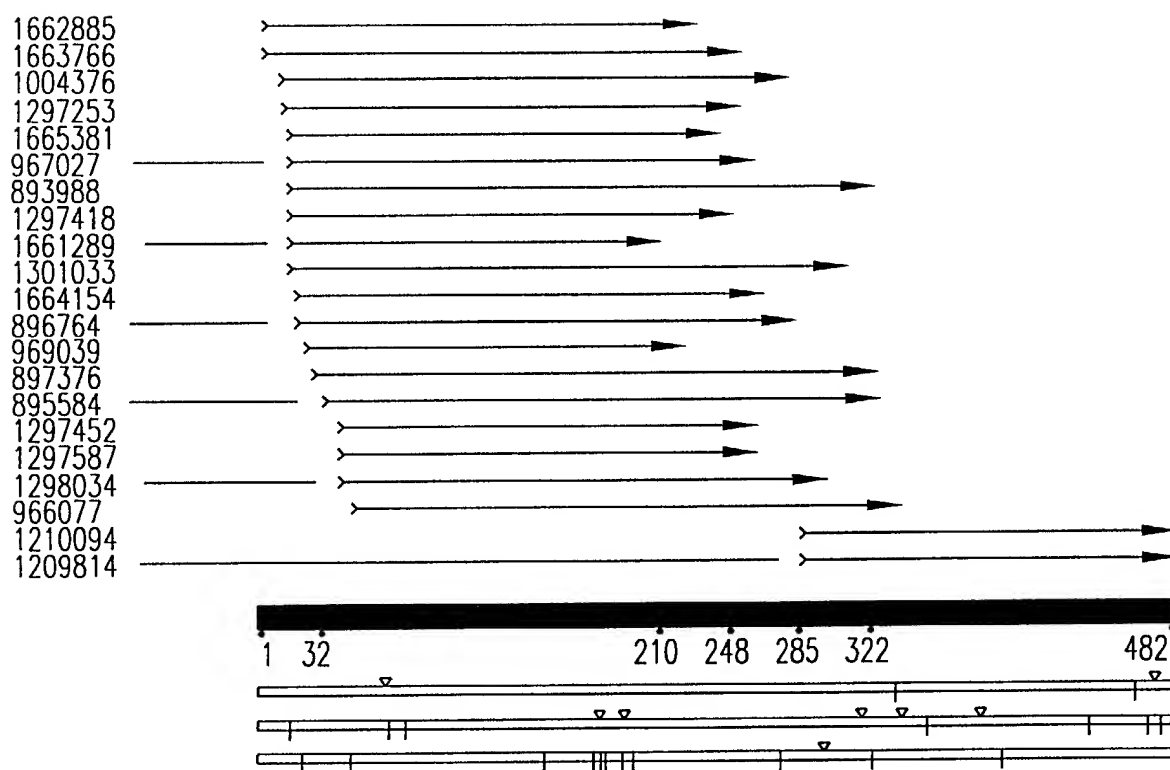
FIG.17

>BS106 CONSENSUS

```
CGGCTCGAGCTCTTAGGCTTTGAAGCATTTTTGTCTGTGCTCCCT
GATCTTCAGGTCACCACCATGAAGTTCTTAGCAGTCCTGGTACTC
TTGGGAGTTTCCATCTTTCTGGTCTCTGCCCAGAATCCGACAACA
GCTGCTCCAGCTGACACGTATCCAGCTACTGGTCCTGCTGATGAT
GAAGCCCCTGATGCTGAAACCACTGCTGCTGCAACCACTGCGACC
ACTGCTGCTCCTACCACTGCAACCACCGCTGCTTCTACCACTGCT
CGTAAAGACATTCCAGTTTTACCCAAATGGGTTGGGGATCTTCCG
AATGGTAGAGTGTGTCCCTGAGATGGAATCAGCTTGAGTCTTCTG
CAATTGGTCACAACTATTCATGCTTCCTGTGATTTCATCCAACTA
CTTACCTTGCCTACGATATCCCCTTTATCTCTAATCAGTTTATTT
TCTTTCAAATAAAAAATAACTATGAGCAACATAAAAAAAAAAAAA
```

FIG.18A

>BS106 TRANSLATION

```
MKFLAVLVLLGVSIFLVSAQNPTTAAPADTYPATGPADDEAPDAE
TTAAATTATTAAPTTATTAASTTARKDIPVLPKWVGDLPNGRVCP
```

FIG.18B

BU101

* EXPRESSION NOT DETECTABLE   FIG.19A

MAMMAGLOBIN

* EXPRESSION NOT DETECTABLE   FIG.19B

BS106

* EXPRESSION NOT DETECTABLE   FIG.19C
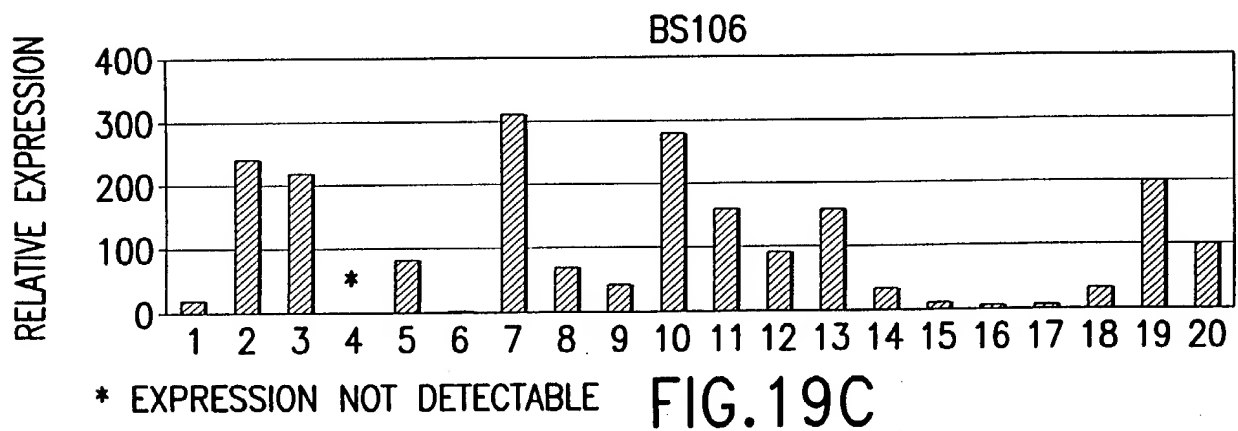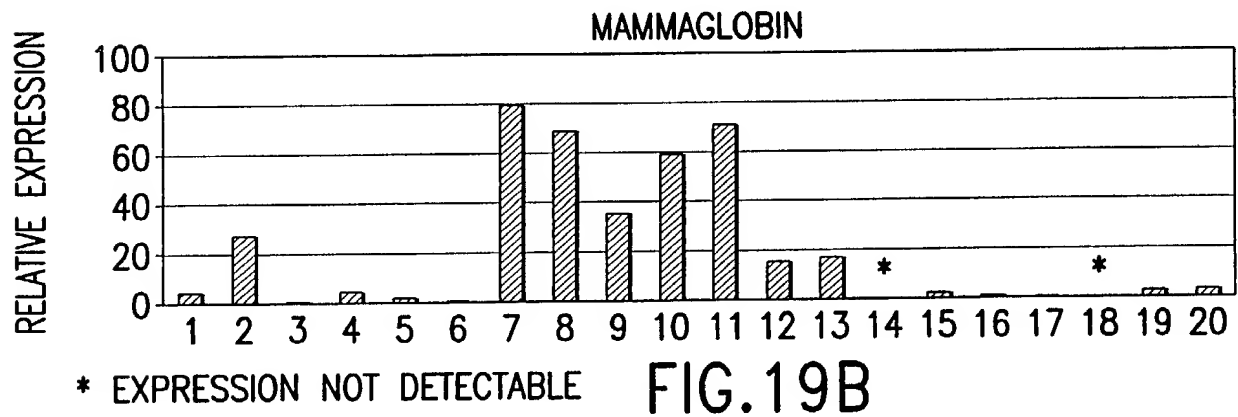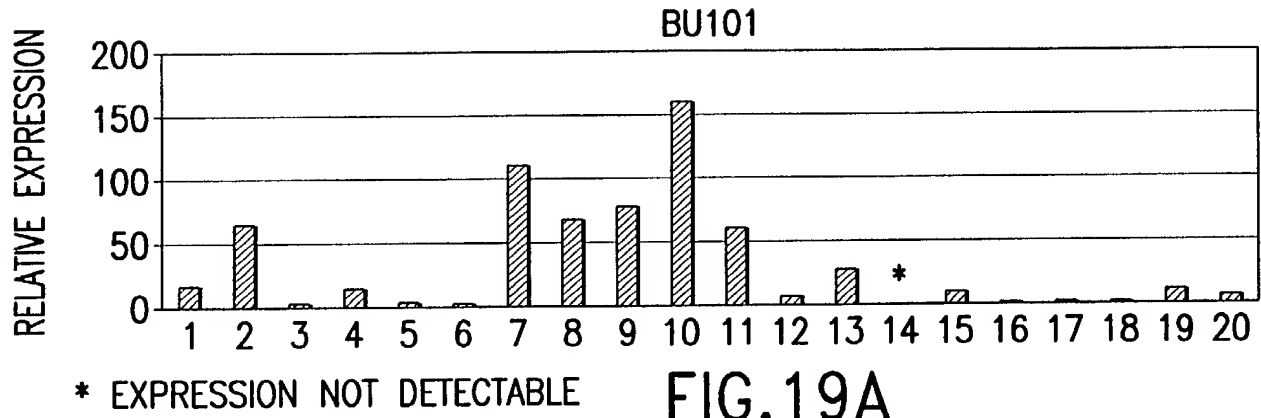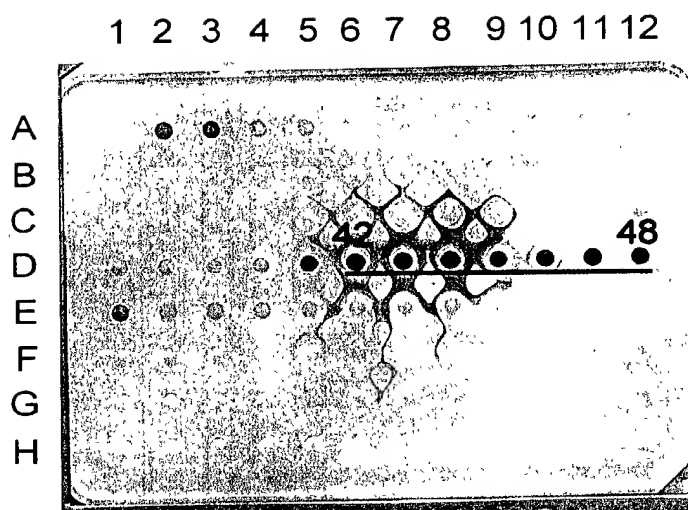
Anti-BU101.3 Polyclonal

FIG.20A

Anti-Mam.1 Polyclonal

FIG.20B

Anti-BU101.3 Polyclonal

FIG.20C
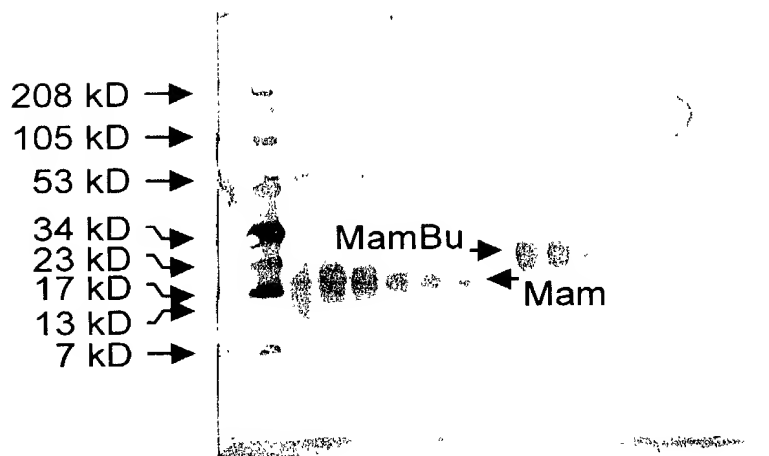
Anti-Mam.1 Polyclonal

FIG.20D

Correlations Between Marker Expression and Clinical and Molecular Parameters

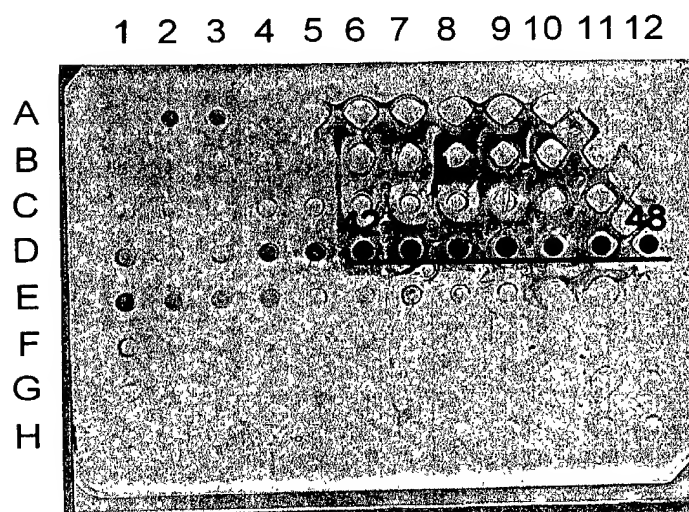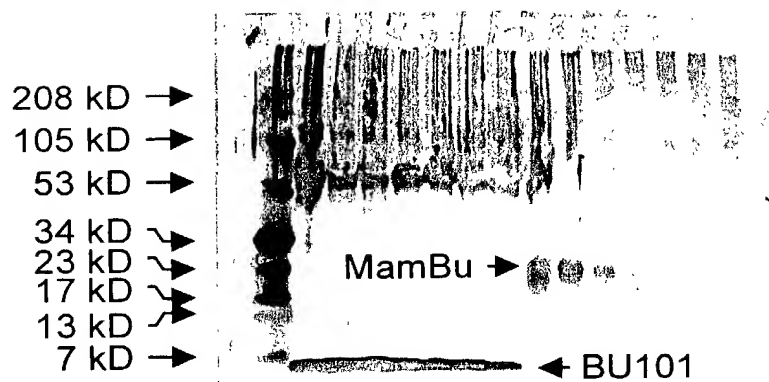|	BU101	BS106	Mammaglobin	CK19	
T Stage	0.003 (NS)	-0.13 (NS)	-0.03 (NS)	-0.03 (NS)	N=95
Grade	-0.14 (NS)	0.12 (NS)	0.03 (NS)	0.06 (NS)	N=90
N Stage	0.05 (NS)	0.06 (NS)	0.04 (NS)	0.19 (NS)	N=85
Nodes +	-0.02 (NS)	0.01 (NS)	0.05 (NS)	0.23 (NS)	N=85
ER	-0.18 NS)	-0.10 (NS)	**-0.23 (p=0.02)**	-0.18 (NS)	N=99
PR	-0.18 (NS)	-0.10 (NS)	**-0.23 (p=0.02)**	-0.18 (NS)	N=99
HER2	-0.12 (NS)	**0.36 (p=0.003)**	0.11 (NS)	0.02 (NS)	N=67
P53	-0.19 (NS)	-0.16 (NS)	-0.02 (NS)	-0.14 (NS)	N=77
BU101	-------	-0.05 (NS)	0.37 (p=0.0001)	-0.04 (NS)	N=101
BS106	-0.05 (NS)	--------	0.004 (NS)	0.07 (NS)	N=101
Mamm	0.37 (p=0.0001)	0.004 (NS)	--------	0.07 (NS)	N=101

Pearson product moment correlations were calculated between each pair of variables. The only significant relationships observed are bolded and have included p values. NS=not significant

FIG.21
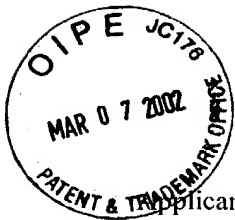
09975502 .030702

PATENT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicants: J. Henslee, *et al.*

Serial No.: 09/975,502

Filed: October 11, 2001

For: REAGENTS AND METHODS USEFUL
    FOR DETECTING DISEASES OF THE
    BREAST

Case No.: 5972.US.P7

Group Art No.: 1645

Examiner: (not yet assigned)

Certificate of Mailing Under 37 C.F.R. §1.10(a)
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the:
Assistant Commissioner for Patents
Box Missing Parts
Washington, D.C. 20231, on:
Date of Deposit: *Kimberly A. Iorio* 2/28/02
Kimberly A. Iorio   Date

RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION

Assistant Commissioner for Patents
Box Missing Parts
Washington, D.C. 20231

Dear Sir:

In response to the Notice to File Missing Parts of Application dated November 11, 2001 in the patent application identified above, applicants submit herewith the following: 1) an executed Declaration and Power of Attorney; 2) substitute Drawings in compliance with 37 CFR §1.84; 3) paper copy of the Sequence Listing; 4) computer readable form copy of Sequence Listing; and 5) Statement to Support Filings and Submissions in accordance with 35 CFR §§1.821-1.825.

The Commissioner is hereby authorized to charge the required surcharge of $130.00 to Deposit Account No. 01-0025. A duplicate copy of this sheet is enclosed.

Respectfully submitted,
J. Henslee, *et al.*

(signature) Cheryl L. Becker

Cheryl L. Becker
Registration No. 35,441
Attorney for Applicants

23492

ABBOTT LABORATORIES
Telephone: (847) 935-1729
Facsimile: (847) 938-2623